Claims:

1. (currently amended) An ~~optical~~ apparatus for magnification, comprising:
an objective reflecting surface in the shape of a truncated half-paraboloid formed by revolving a parabola about its axis for only 180 degrees of a full a revolution such that there is a plane defined by the optical axis and the parabolic edge of the surfaces,
ocular reflecting surface of same shape but of different size,
a means of positioning said objective reflecting surface and said ocular reflecting surface consisting of a solid material that is substantially transparent to some electromagnetic radiation and fills the inner space between the objective reflecting surface and the ocular reflecting surface such that their axes are substantially colinear but point in opposite directions, their focal points are at substantially the same shared point, they are on opposite sides of the shared focal point, and the planes formed between the optical axis and the parabolic edge of each surface are in the same plane in
space, whereby a virtual image may be magnified or demagnified.

2. (canceled)

3. (currently amended) The apparatus of Claim [[2]] 1 wherein the surfaces are reflecting because the ~~transparent~~ inner transparent solid material that is proximal to the optical axes
has a higher index of refraction than the ~~outer side of the surface~~ surrounding material that is distal from the optical axes, ~~whereby magnification can be performed~~ wherein [[by]] a single solid object magnifies with substantially no losses due to reflection from metal or

losses from internal air-material interfaces.

4. (currently amended) The apparatus of Claim [[2]] 1 wherein the surfaces are reflecting because of the application of a specular material to the transparent solid material where the reflecting surfaces are formed, ~~whereby magnification can be performed with~~ enabling magnification by a single solid object.

5. (canceled)

6.(Original) The apparatus of Claim 1 repeated many times in a planar array such that the optical axis of each apparatus is parallel, whereby optical energy can be captured by a device which is thin and light relative to its collecting area.

7. (currently amended) ~~The array of Claim 6 wherein each cell is a apparatus of Claim 2~~ The apparatus of Claim 1 repeated many times in a planar array such that the optical axis of each apparatus is parallel and the cells are held in place substantially through the structural solidity of the transparent material that is the optical medium, whereby optical energy can be captured by a single shaped object that is thin and light relative to its collecting area.

8. (currently amended) ~~The array of Claim 7 wherein each cell is is a apparatus of Claim 3,~~ The apparatus of Claim 3 repeated many times in a planar array such that the optical axis of each apparatus is parallel whereby solar energy can be collected from a single solid object made out of a structural transparent material with no internal air-material interface that is thin and light relative to its collecting area.

9. (currently amended) The array of Claim 8 wherein each cell feeds solar energy into a flexible light guide, whereby solar can energy be collected from a single solid object made out of a structural transparent material with no internal air-material interface that is thin and light ~~relatvie~~ relative to its collecting area and transported to a convenient distant place.

10. (currently amended) The apparatus of Claim [[2]] 1 with light baffles so that ~~whereby~~ a reflecting telescope with an unobstructed aperture of semicircular shape ~~may be constructed~~ is created.

11. (currently amended) The apparatus of Claim 3 with light baffles so that ~~whereby~~ a reflecting telescope with an unobstructed aperture ~~may be constructed~~ having no internal refraction or reflection losses is created.

12. (currently amended) The apparatus of Claim 1 [[and]] wherein the reflecting surfaces are capable of reflecting higher-than optical frequency radiation and baffles limiting radiation to those surfaces that can serve to magnify or demagnify very high frequency radiation.

13. (currently amended) An ~~optical~~ apparatus for radiation concentration or diffusion, comprising: an objective reflecting surface in the shape a truncated half-parabola formed by taking a truncated portion of one-half of a parabola from the vertex of the parabola to some other arbitrary point of truncation following a path from the vertex in one direction,
an ocular reflecting surface of same shape but of different size,
a means of positioning said objective reflecting surface and said ocular reflecting surface that is a solid material that is transparent to some electromagnetic radiation and fills the inner space between the two

surfaces such that their axes are substantially colinear but point in opposite directions, their focal points are at substantially the same shared point, and they are on opposite sides of the shared focal point, whereby a two-dimensional virtual image may be magnified or demagnified or [[a]] three-dimensional
radiation diffused or collected.

14.(canceled)

15. (currently amended) The apparatus of Claim [[14]] 13 wherein the surfaces are reflecting because the inner transparent solid material that is proximal to the optical axes
has a higher index of refraction than the ~~outer side of the surface~~ surrounding material that is distal from the optical axes, ~~because the transparent solid material
has a higher index of refraction than the outer side of the surface, whereby magnification can be performed~~ enabling magnification with a single solid object with no losses due to reflection from metal or losses from internal
air-material interfaces.

16. (canceled)

17. (currently amended) The apparatus of Claim 13 repeated many times in a planar array such that the optical axis of each apparatus is parallel, whereby ~~optical~~ electromagnetic energy can be captured by a device which is thin and light relative to its collecting area.

18. (currently amended) The ~~array of Claim 17 wherein each cell is is a apparatus of Claim 2~~ apparatus of Claim 1 repeated many times in a planar array such that the optical axis of each apparatus is parallel and

the cells are held in place
substantially through the structural solidity of the transparent material that is the optical medium,
whereby optical energy can be captured by a single shaped object that is thin and light relative to its
collecting area.

19. (currently amended) The array of Claim 18 wherein each cell is ~~a apparatus of Claim 3~~ reflecting because the inner transparent solid material that is proximal to the optical axes
has a higher index of refraction than the surrounding material that is distal from the optical axes, whereby solar energy can be
collected from a single solid object made out of a structural transparent material with no internal air-material interface that is thin and light relative to its collecting area.

20. (currently amended) The array of Claim 19 wherein each cell feeds solar energy into a flexible light guide, ~~whereby~~ enabling solar
energy to be collected from a single solid object made out of a structural transparent material with no
internal air-material interface that is thin and light relative to its collecting area and transported to a
convenient distant place.